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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/986,046 | 11/07/2001 | Toshio Kikuchi | 040356-0404 | 4829 |

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FOLEY AND LARDNER
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EXAMINER

NGUYEN, HANH N

| | |
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| ART UNIT | PAPER NUMBER |
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2834

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,046

Applicant(s)

KIKUCHI ET AL.

Examiner

Nguyen N Hanh

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 7 is objected to because of the following informalities: "cooling region and near the opening" should be written as---cooling region near the opening--- as in original claim 7. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by McCabria.

Regarding claim 6, McCabria discloses a rotating electric machine, comprising: a stator (34) having a stator core and a slot; coils housed in the slot; and a closing member (68 in Fig. 7) for closing an opening of the slot and defining a cooling passage (66) in the slot; wherein the coils are provided in a coiling region limited to a position near the bottom of the slot, and the overall region closer to the opening of the slot than the coils is filled by the closing member (Fig. 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Washizu et al. in view of Baba et al.

Regarding claim 1, Washizu et al. disclose a rotating electric machine having a stator (Fig. 5) with a slot (37) for housing coils, and a closing member (36a in Fig. 6) for closing the opening of the slot and forming a cooling passage in the slot (Col. 3, lines 53-65), wherein the coils are formed from concentrated windings, the rotating electric machine comprising: two oil jackets (26 in Fig. 5) each mounted on an end face of the stator so as to form an oil chamber on each end face of the stator, the oil chambers being connected to the slots (Col. 4, lines 28-35). The structure disclosed by Washizu et al. fails to show a regulating member for narrowing the cross-sectional area of the cooling passage in the slot, the regulating member being disposed in a substantially central section of the slot.

However, Baba et al. disclose a rotating electric machine wherein a regulating member for narrowing the cross-sectional area of the cooling passage in the slot, the regulating member being disposed in a substantially central section of the slot for the purpose of narrowing the stator slot.

Since Washizu et al. and Baba et al. are in the same field of endeavor, the purpose disclosed by Baba et al. would have been recognized in the pertinent art of Washizu et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Washizu et al. by as taught by using a regulating member for narrowing the cross-sectional area of the cooling passage in the

slot, the regulating member being disposed in a substantially central section of the slot as taught by Baba et al. for the purpose of narrowing the stator slot.

Regarding claim 2, Baba et al. also disclose a rotating electric machine wherein the closing member and the regulating member are integrated (Fig. 12).

Regarding claim 3, Baba et al. also disclose a rotating electric machine wherein the regulating member extends from the main section of the closing member into the slot.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Washizu et al. in view of Baba et al. and further in view of Takeuchi et al.

Regarding claim 5, Washizu et al. and Baba et al. show all limitations of the claimed invention except showing the rotating electric machine wherein the stator is formed by arranging a plurality of divided cores with coils in a cylindrical shape.

However, Takeuchi et al. disclose the rotating electric machine wherein the stator is formed by arranging a plurality of divided cores with coils in a cylindrical shape for the purpose of simplifying the manufacturing process.

Since Washizu et al., Baba et al. and Takeuchi et al. are in the same field of endeavor, the purpose disclosed by Takeuchi et al. would have been recognized in the pertinent art of Washizu et al. and Baba et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Washizu et al. and Baba et al. by using a plurality of divided cores with coils in a cylindrical shape as taught by Takeuchi et al. for the purpose of simplifying the manufacturing process.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCabria in view of Abukawa et al.

Regarding claim 7, McCabria shows all limitations of the claimed invention except showing the rotating electric machine further comprising a stopper for supporting each of the coils, the stopper projecting from the teeth of the stator core into the inner section of the slot and being positioned on the end of the coiling region near the opening of the slot.

However, Abukawa et al. disclose the rotating electric machine further comprising a stopper for supporting each of the coils, the stopper projecting from the teeth of the stator core into the inner section of the slot and being positioned on the end of the coiling region near the opening of the slot (Fig. 2 and 3) for the purpose of holding the closing member.

Since McCabria and Abukawa et al. are in the same field of endeavor, the purpose disclosed by Abukawa et al. would have been recognized in the pertinent art of McCabria.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify McCabria by forming a stopper for supporting each of the coils, the stopper projecting from the teeth of the stator core into the inner section of the slot and being positioned on the end of the coiling region near the opening of the slot as taught by Abukawa et al. for the purpose of holding the closing member.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCabria.

Regarding claim 8, McCabria shows all limitations of the claimed invention except showing the rotating electric machine wherein the closing member comprises a first member and a second member, the first member molded of a resin in the slot opening, and the second member buried after removing a mold member used in the slot to form the first member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the closing member by the first member and the second member, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Moreover, the method of forming the first and the second closing member is given little patentable weight since the method of forming the device is not germane to the issue of patentability of the device itself.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCabria in view of Takeuchi et al.

Regarding claim 9, McCabria shows all limitations of the claimed invention except showing the rotating electric machine wherein the stator is formed by arranging a plurality of divided cores with coils in a cylindrical shape.

However, Takeuchi et al. disclose the rotating electric machine wherein the stator is formed by arranging a plurality of divided cores with coils in a cylindrical shape for the purpose of simplifying the manufacturing process.

Since McCabria and Takeuchi et al. are in the same field of endeavor, the purpose disclosed by Takeuchi et al. would have been recognized in the pertinent art of McCabria.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify McCabria by using a plurality of divided cores with coils in a cylindrical shape as taught by Takeuchi et al. for the purpose of simplifying the manufacturing process.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCabria in view of Baba et al.

Regarding claim 9, McCabria shows all limitations of the claimed invention except showing the rotating electric machine wherein the closing member is in contact with an end of adjacent coils, and wherein the cooling passage is formed between the adjacent coils.

However, Baba et al. disclose the rotating electric machine wherein the closing member is in contact with an end of adjacent coils, and wherein the cooling passage is formed between the adjacent coils for the purpose of securely holding the coils.

Since McCabria and Baba et al. are in the same field of endeavor, the purpose disclosed by Baba et al. would have been recognized in the pertinent art of McCabria.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify McCabria by using the closing member is in contact with an end of adjacent coils, and wherein the cooling passage is formed

between the adjacent coils as taught by Baba et al. for the purpose of securely holding the coils.

Response to Arguments

9. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments with respect to claims 6 and 7 have been fully considered but they are not persuasive. Applicant's argument is on the ground that "the reference that the Examiner relies on, McCabria, does not disclose the overall region closer to the opening of the slot than the coils is filled by the closing member". The Examiner respectfully disagrees with the Applicant. The Examiner interprets the "overall region closer to the opening of the slot than the coils" as the region starting from the coils to the opening. Refer to Fig. 7 of the reference, the element 68 clearly fills out the overall region closer to the opening of the slot than the coils even though it does not fill out entirely the overall region to the opening of the slot. Regarding claim 7, the stopper even though is not in contact with the coils but it still supports the coils by means of a closing member to prevent the coils from coming out of the stator teeth during rotation. In short, the claims are interpreted as broad as possible and they still do not clearly and distinctly claim the subject matter of the invention. Therefore, the rejection is still deemed proper

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

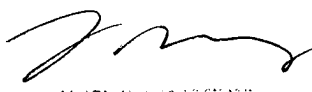
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information on How to Contact USPTO

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (703)305-3466. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703)308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.


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April 29, 2002